Superfund Contaminated Sediment Remediation Guidance

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The Purpose Of The Guidance

- The Guidance is designed to assist Regional Managers who need to make sediment risk management decisions.
- The Guidance is intended to raise awareness of the complexity of sediment sites.
- The Guidance focuses on helping Regional Managers select from a menu of possible technologies.

We Have Made A Conscious Effort Not To Duplicate Existing Sediment Guidance and Information

- Office of Water/Office of Research and Development: (Remediation and Sampling)
- Great Lakes Office; Assessment and Remediation of Contaminated Sediments Program (ARCS) available on the Internet: (40 plus publications).
- Army Corps of Engineers: Guidance available on many sediment remediation and disposal topics, much of which is available on the Internet.
- Environment Canada, and Province of Ontario.

Chapter 1, Setting The Stage For Effective Remediation - The Guidance Premise:

- The Project Manager is ready to evaluate potential remedies. This means that:
  - ✓A great deal of site data has been collected and analyzed.
  - ✓The scope and extent of contamination have largely been determined.
  - ✓The Baseline Risk Assessment shows that human health and/or ecological threats need to be addressed.

Chapter 2 - Assessing The Potential Impacts of Disruptive Forces

December 2000

Great Falls, Virginia – Hurricane Juan Flooding

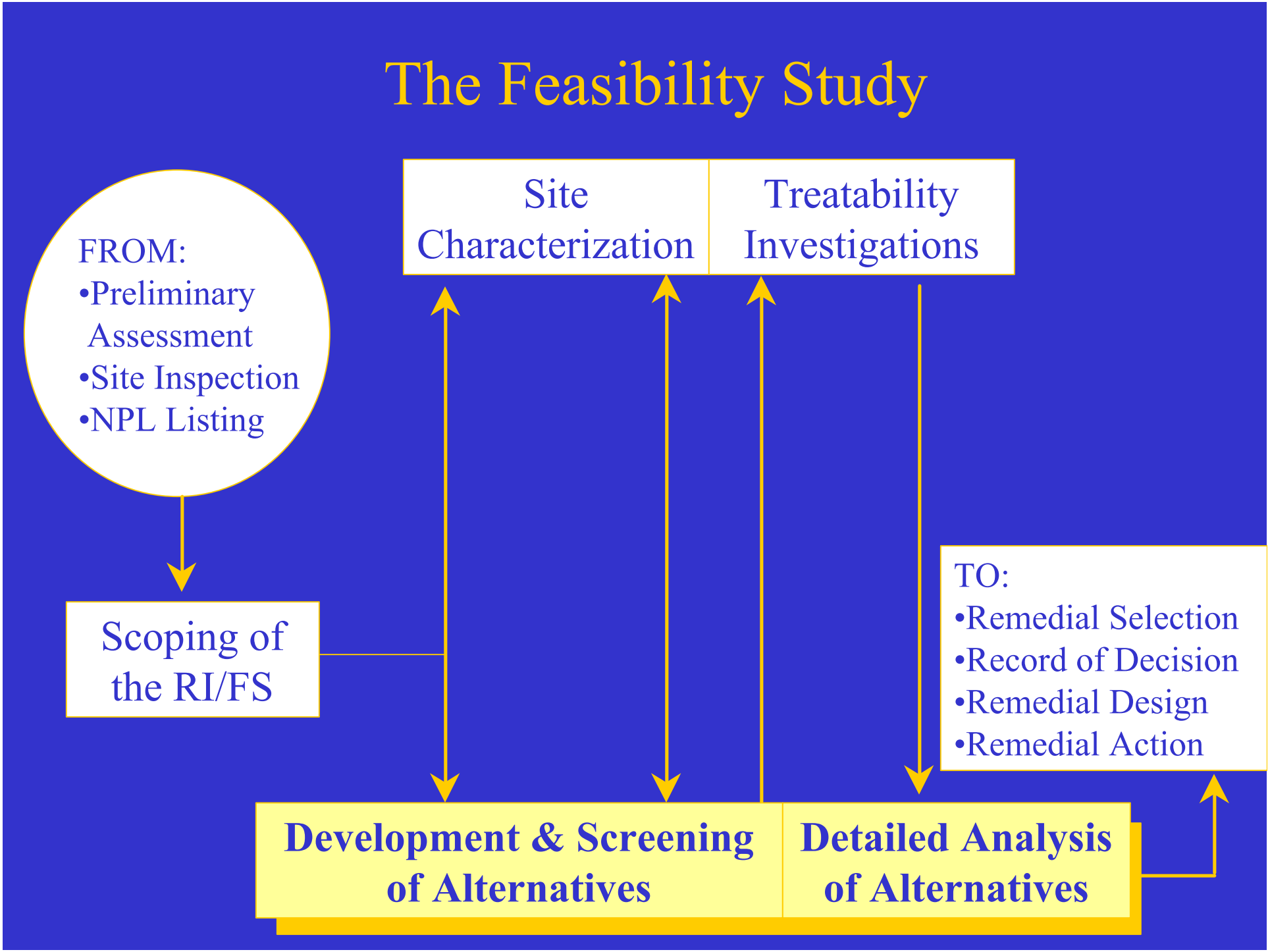
October 1985

Chapter 2 –Assessing Disruptive Forces

Chapter 3 - Developing and Evaluating Sediment Alternatives

The Sediment Guidance is focused on the Feasibility Study (FS)

The Feasibility Study



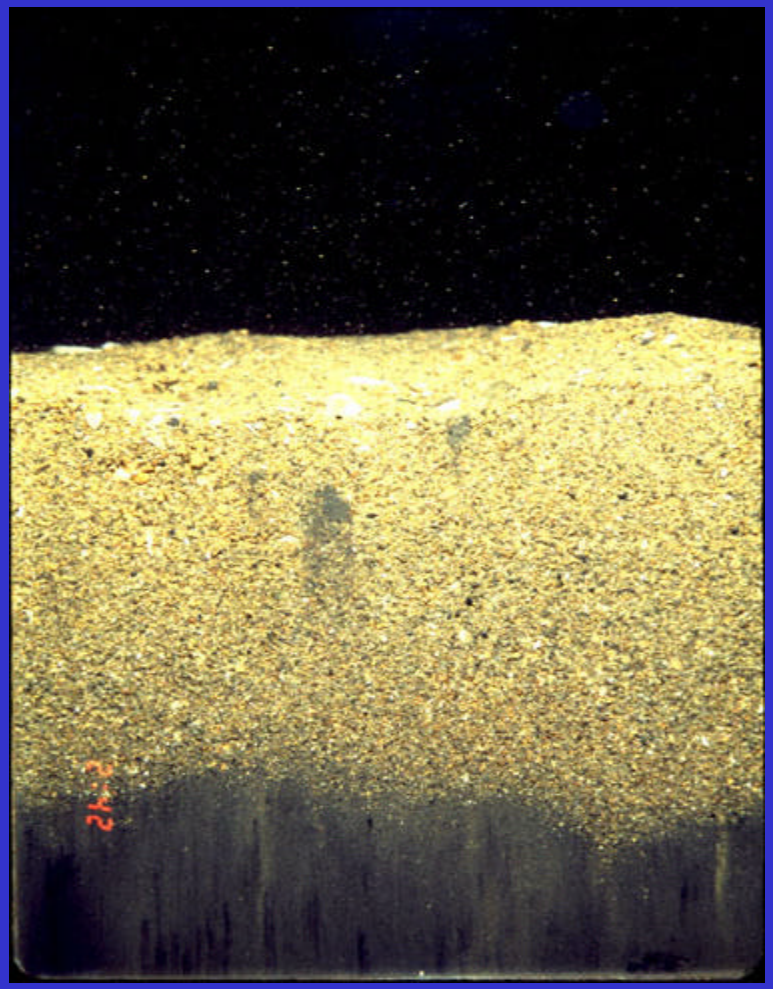
Chapter 4 – Monitored Natural Recovery Alternatives

- Natural sedimentation processes build up a clean isolation layer over contaminants.
- Dilution by bioturbers and other forces.
- Molecular and biological degradation can also occur.
- Long-term monitoring and institutional controls will be required.

Deep Quiescent Water Provides Ideal Conditions For MNR

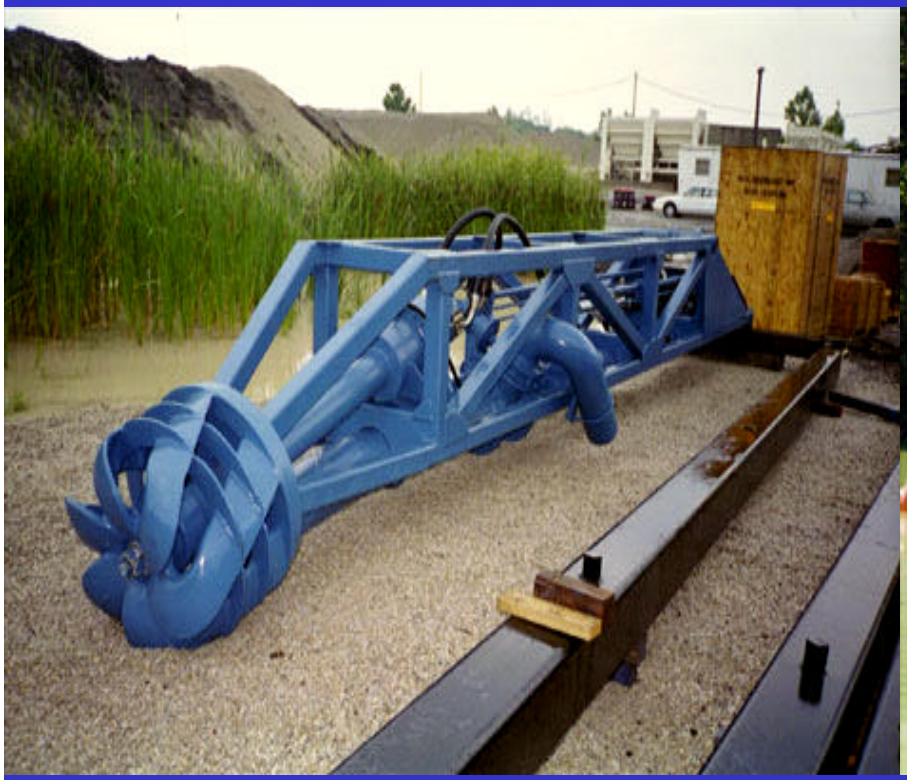
In-Situ Capping Alternatives; Contain Contaminants In Place

- Engineered isolation of contaminated areas
- Engineering design necessary to prevent mobility and bioturbation
- Armoring may be required for protection
- Long-term monitoring



Chapter 6 - Dredging, Treatment, and Disposal Alternatives

Dredging Using Hydraulic Dredges



Dredging With Environmental Mechanical Dredges

Sediment Removal Using "Dry" Excavation Techniques

Treatment and Disposal Alternatives

Superfund Contaminated Sediment Remedial Guidance Chapters

- Remedy Selection Considerations
- Remedial Action and Long-Term Monitoring

Appendix A:
Considering the Role of Models

Appendix B:
Useful Resources and Web-sites

Additional Appendices

Projected Completion Schedule

- Early Winter: Notice of Availability of draft guidance published in the Federal Register.
- Summer 2002: Publish Final Guidance.